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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/058,585 | 01/24/2002 | Duwayne R. Anderson | 7249 US | 4141 |

30078 7590 05/06/2003
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EXAMINER

VALENTIN, JUAN D

ART UNIT PAPER NUMBER

2877

DATE MAILED: 05/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/058,585

Applicant(s)

ANDERSON, DUWAYNE R. ✓

Examiner

Juan D Valentin II

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 12 and 13 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-11, drawn to a fiber pigtail assembly for coupling light from an optical fiber to an optical detector, classified in class 385, subclass 88.
 - II. Claims 12 and 13, drawn to a method of adjusting a fiber pigtail assembly for coupling light from an optical fiber to an optical detector, classified in class 385, subclass 90.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus as claimed can be used to practice another and materially different process such as maximizing the power output from the pigtail to the detector.
 3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
 4. During a telephone conversation with Francis I. Gray on 30 April 2003 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-11.
- Affirmation of this election must be made by applicant in replying to this Office action. Claims

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12 & 13 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

5. New corrected formal drawings are required in this application because the submitted drawings are informal. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 8 & 10 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8

Examiner cannot distinguish with the current claim language, whether there are two or three **different** optical fibers within the assembly in claim 8. Applicant discloses an external optical fiber, an intermediate optical fiber, and the optical fiber disclosed in a prior dependant claim. The specification (page 9, lines 9-16) discloses the use of two different fibers within the

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three-ferruled assembly. Applicant is asked to please clarify the language in claim 8 to better disclose Applicants invention. Claim 9 is rejected because it is dependant upon rejected claim 8.

Claim 10

Examiner cannot distinguish with the current claim language, whether there are two or three **different** optical fibers within the assembly in claim 10. Applicant discloses an external optical fiber, an intermediate optical fiber, and an optical fiber of the fiber pigtailed assembly. The specification (page 9, lines 9-16) discloses the use of two different fibers within the three-ferruled assembly. Applicant is asked to please clarify the language in claim 10 to better disclose Applicants invention. Claim 11 is rejected because it is dependant upon rejected base claim 10. Due to the indefinite problems of claim 10, it cannot be determined at this time whether a restriction would be proper between claims 1 and 10.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 & 3, rejected under 35 U.S.C. 103(a) as being unpatentable over Jiang et al. (USPN '050, hereinafter Jiang) in view of O'Donnell (USPN '495).

Claim 1

Jiang discloses in conjunction with Fig. 1, a fiber pigtailed assembly (101) (col. 3, lines 46-39) for coupling light from an optical fiber (106) to an optical detector (104) comprising

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means for mounting the optical fiber adjacent to the optical detector (101). Jiang discloses the optical fiber having a beveled end (107) and having a diameter less than the area of a detector surface of the optical detector (col. 2, lines 51-58) so that the light from the beveled end impinges on the detector surface. Jiang discloses the detector surface being tilted (col. 4, lines 17-33).

Jiang substantially teaches the claimed invention except that it fails to show a detector rotated with respect to the beveled end to produce essentially zero polarization-dependent responsivity and low back reflection. O'Donnell shows that it is known to provide rotation of the ferrule containing a fiber (col. 4, line 61-col. 5, line 15) for a polarization sensitive component in a package. It would have been obvious to someone of ordinary skill in the art to combine the device of Jiang with the rotation alignment procedure of O'Donnell for the purposes of providing polarization alignment between a fiber and optical component in order to reduce incidence of misalignment between the two (col. 1, lines 47-52).

Claim 3

Jiang in view of O'Donnell further disclose in conjunction with Fig. 1 (Jiang), a fiber pigtailed assembly wherein the mounting means comprises a housing (101) having a fiber holding portion (101) and a detector holding portion (103) coupled together by a connecting portion (102) to form a gap there between. Jiang in view of O'Donnell disclose the optical fiber being mounted in the fiber holding portion (101) so that the beveled end (107) extends into the gap and the optical defector (104) being mounted in the detector holding portion (103) so that the detector surface is adjacent, tilted, and rotated with respect to the beveled end.

Applicant will be appreciated that the ref. of O'Donnell teaches the rotation of the ferrule containing fiber with respect to the end of the fiber. Therefore, the reference of Jiang in view of O'Donnell reads on the claimed limitation.

8. Claims 2 & 4-6 rejected under 35 U.S.C. 103(a) as being unpatentable over Jiang in view of O'Donnell and further in view of Minamino et al. (USPN '666 B1).

Claim 2 & 4

Jiang in view of O'Donnell substantially teaches the claimed invention except that it fails to show further comprising means for adjusting a tilt angle of the detector surface with respect to the beveled end. Minamino shows that it is known to provide tilt adjusting means (col. 12, line 52-col. 13, line 15) for an light receiving module. It would have been obvious to someone of ordinary skill in the art to combine the device of Jiang in view of O'Donnell with the tilt adjustment means of Minamino for the purposes of suppressing harmful influences due to light reflection (col. 13, lines 7-15).

Claim 5

Jiang in view of O'Donnell substantially teaches the claimed invention except that it fails to show wherein the adjusting means comprises the connection portion being flexible and coupled to the housing for angularly varying the gap to adjust the tilt angle by rotating about a point in the connection portion. Minamino shows that it is known to provide a connection portion being flexible and coupled to the housing for angularly varying the gap (col. 11, line 1-12) for an light receiving module. It would have been obvious to someone of ordinary skill in the art to combine the device of Jiang in view of O'Donnell with the connection portion being

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flexible and coupled to the housing for angularly variation of Minamino for the purposes of precisely setting the angle between the detector and ferrule.

Claim 6

It is the position of the Office that even though the reference of Jiang in view of O'Donnell and further in view of Minamino does not specifically disclose wherein the angularly varying means comprises a screw threaded through one of the fiber and detector holding portions, it does outline the importance of adjusting the angle between the detector and ferrule in order to reduce harmful influences due to light reflections. In light of the applicants disclosure, there is no critically distinguishing angle variation through the use of a screw feature in the applicants disclosure that exemplifies novelty over prior art disclosure. Therefore, producing the same results as the applicants limitation, therefore the reference of Jiang in view of O'Donnell and further in view of Minamino reads on applicants claimed limitation.

Applicant has not disclosed any significant result obtained using a screw to adjust the tilt angle. Applicant has disclosed that adjusting the tilt angle helps reduce losses associated with back reflections, Minamino discloses an tilt adjustment means to change the angle between a detector and ferrule helps reduce losses associated with back reflections, therefore Applicants limitation has been met and the reference of Jiang in view of O'Donnell and further in view of Minamino reads on the claimed limitation.

9. Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Jiang et al. in view of Schmidt (USPN '338 B1).

Claim 7

Jiang substantially teaches the claimed invention except that it fails to show a fiber pigtailed assembly further comprising means for coupling an opposing end of the optical fiber to an external optical fiber with low back reflection and minimum polarization dependent responsivity. Schmidt shows that it is known to provide means for coupling an opposing end of the optical fiber to an external optical fiber with low back reflection and minimum polarization dependent responsivity (col. 4, lines 45-57) for a measuring device with an optical. It would have been obvious to someone of ordinary skill in the art to combine the device of Jiang with the coupling means of Schmidt for the purposes of providing substantially no polarization dependent loss.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan D Valentin II whose telephone number is (703) 605-4226. The examiner can normally be reached on M-Th., Every other Fr..

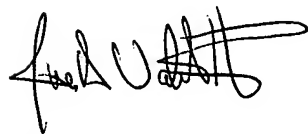
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (703) 308-4881. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308- 0955.

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Juan D Valentin II

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JDV

May 2, 2003



Michael P. Stafira
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